**Concordia University**

**Department of Economics**

**Economics 641**
**Financial Economics II**

**Winter Term 1998**

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**Description**

The course combines theory and empirical work in financial economics. The course has four parts. The first deals with the pricing of derivative securities within a continuous-time stochastic framework. Several aspects of the implementation of derivative pricing models are treated in the second part of the course. Part three returns to theory and covers issues in dynamic asset pricing in a general equilibrium framework. The final part of the course treats the bond market, and considers empirical work associated with both linear time-series models of bond yields as well as fully specified general equilibrium models of the term structure of interest rates. Further details are given below.

It should be noted that there are no pre-requisites for the course; some computer experience is desirable.

**Texts**

Huang, C. and R. Litzenberger (1988) Foundations for Financial Economics, Prentice Hall.

Hull, J. C. (1993) Options, Futures, and other Derivative Securities, Prentice Hall.

Campbell, J.Y., A.W. Lo and A. C. MacKinlay (1997) The Econometrics of Financial Markets, Princeton.

**Evaluation**

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|---|---|
| Exam [Parts 1, 2, 3] | 40% |
| Problems [Parts 1, 3] | 20% |
| Projects [Parts 2, 4] | 40% |

**Outline**

**Part 1** [Anastas; weeks 1-3]

The rudiments of continuous time finance. Wiener processes. Ito's Lemma. Pricing formulas such as Black-Scholes. General condition satisfied by derivative securities.

Ref. Hull, Chapters 9-12.

**Part 2** [Campbell; weeks 4-6]

The implementation of parametric option pricing models: maximum likelihood estimation, generalized method of moments estimation. Effects of asset return predictability. Pricing of path dependent derivatives via simulation.

Ref. Campbell, Chapter 9.

**Part 3** [Anastas; weeks 7-9]

Equilibrium valuation of securities in a multiperiod economy. Rational expectations equilibrium. Valuation by arbitrage.

Ref. Huang and Litzenberger, Chapters 7- 8.

**Examination** Week 10

**Part 4** [Campbell, Weeks 11-13]

The expectations hypothesis of the term structure of interest rates. Yield spreads and interest rate forecasts. Affine-yield models of the term structure. Fitting term structure models to the data.

Ref. Campbell, Chapters 10-11.